## The Rise of the User Generated City

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■ n the early 1960s, Robert Moses proposed an expressway for lacksquare Manhattan that would have leveled multiple city blocks and bifurcated the Lower East Side and SoHo. The Lower Manhattan Expressway (LoMEx) was never constructed – thanks to a now infamous standoff in 1962 with community activists led by Jane Jacobs – but Moses' asphalt vision resurfaced recently. A map of the eight-lane highway appeared on the web courtesy of photographer and geography student, Andrew Lynch. Lynch was curious how the expressway would read on a modern map, so he downloaded the necessary streetscapes from Google and he overlaid the path of the LoMEx. A broad yellow band now sweeps down Broome Street from the Holland Tunnel to the Manhattan Bridge; another band shoots down the Bowery on its way to the Williamsburg Bridge. Two yellow rivers wind through the epicenter of one of world's most vibrant urban neighborhoods. It serves as a stark reminder of how fragile a city really is. What if Jacobs had lived in Poughkeepsie instead of Greenwich Village and never picked up a picket sign? What if Moses had won the fight?

There are other renderings of the LoMEx, other maps and drawings of its potentially disastrous path, but it is Lynch's Google version that is the most compelling. In the last few years, the Google Map aesthetic has become a pervasive visual language; it is increasingly how we read space. This map *feels* like the real thing and that is exactly what Lynch intended. "We have become so accustomed to viewing the world through Google Maps (or some other online mapping software) that I feel like these maps are starting to shape our view point of the city," he wrote on

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his blog. To look at his map out of context, you would never know it to be speculative.

The purpose of a map is to place us geographically, to define and outline our world. As such, maps are often taken as reality, as objective presentations of fact. Anyone studying cartography, however, recognizes maps as a relatively subjective form. They have always been communication tools rooted in culture and history and how we understand territory depends on our perspective. Interpretation, bias, and circumstance play a large role. Take, for example, the research of Ohiobased archivist William C. Barrow. In 2003 he studied official maps of Cleveland and found, among other things, subdivisions that were never realized. "Inaccuracies in local history maps are most often caused by the failure of commercial map makers to keep track of changes in the community, or by their need to incorporate the newest information as it comes available, sometimes adding features that ultimately never appear on the ground," he wrote at the time.

Today, new technologies allow improved tracking of those changes that Barrow references. Google Earth affords extraordinary visual access to the world, allowing us to zoom in on 360-degree street-level images and see a place for ourselves. Click on a tab and up comes additional data, from restaurant reviews to traffic updates. We now have the power to map minutiae at a grand scale, creating what journalist Evan Ratliff referred to in a 2007 *Wired* magazine article as "a geoweb that's expanding so quickly its outer edges are impossible to pin down."

This increased visual access adds a kind of veracity; it creates a sense that the cartographer's subjectivity has been replaced by literal images of what exists. It's easy to forget that much of what is found in these online maps comes from individuals uploading data and photos via an accessible software language. Applications from map providers like Google, Microsoft, and Yahoo invite volunteers to contribute their own information onto these increasingly data-rich streetscapes. There was a time when cartography was the realm of the professional explorer – like Lewis and Clark – willing to brave the wilds and return home with detailed coordinates and sketches of unknown landscapes. Today, any one of us can access the necessary software to impose our own geographic

interests onto the world.

As mapping software becomes more ubiquitous, maps become increasingly subjective. We can take our worldview and filter our spatial experience to create individualized interpretations of cities. We can develop our own maps, layering subsets of information based on personal obsession – be it social networks, bird migrations, or bar crawls – and add it to this ever-widening gyre of geographic data. The Lewis or Clark of today is sitting safely behind a laptop and instead of mapping terra incognita, he is placing red pin tabs over his favorite tattoo parlors.

The map key is expanding exponentially as a result. The Green Maps movement looks at cities through the lens of sustainable businesses and resources. Here, the Google red tab is replaced by a series of graphic abstractions representing earth-friendly resources. The website Mr. Beller's Neighborhood maps New York via oral histories. Click on a pushpin and you can read a story about what happened at that address.

Cities themselves are now embracing this user-generated approach. In Baltimore, the department of tourism recently scrapped its website and re-launched a new one based on a concept known as "My Baltimore." "People can define for themselves what they mean by 'Baltimore,'" explains Amber Shriver, the site's designer. Anyone can upload images to create their own personalized tour of the city. There is no longer one official story, no longer one official map. We are all the cartographers of our own lives.

With this new capacity for mapmaking comes a need to recalibrate our relationship with maps themselves. There is a growing debate about how all this user-generated data will affect our perception of space. David Weinberger, author of *Everything is Miscellaneous*, put it this way in the 2007 *Wired* article written by Ratliff: "Once you express location in human terms, you get multiple places with the same name, or political issues over where boundaries are, or local differences. As soon as you leave the latitude/longitude substrate, you get lost in the ambiguous jumble of meaning. It's as close to Babel as we get."

What blogging and citizen journalism have done to the news industry, user-generated mapping is doing to geography. There is no gatekeeper. There is no fact checker taking responsibility for accuracy.

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We have this belief that we are more informed, that we have more data, and yet we have little by way of interpreting the legitimacy of all that information.

Some believe that access to so much photocartography, like Google Earth, increases the potential to bias our understanding of what a particular geography can achieve. We see a picture and it is welded into our mind as fact. We can forget that these images are just captured moments in time. In a Google Street View map of my home you'll find a photo of my husband in the driveway unloading the trunk of our car after a vacation. A vacation that we took more than a year ago. The Google Map image is not an accurate portrayal of today's reality; it is, rather, a reality constructed via a series of steps over time in a software program.

There have been some interesting studies on how tourism images impact perceptions of place, and they are worth a look as we consider this eruption in global photocartography. In her 2005 essay titled *Reality vs. Actuality: A Construction of the Truth*, University of Washington student Carly Cannell cites research about how the photographic language in tourist brochures affects the way tourists think and act, right down to the way they construct their own photos. "Our reality becomes that of the presented photos and our experiences are shaped accordingly," she writes. "The preconceived notions of the destination and culture cause [tourists] to seek out the same pictures as those in the travel books. In this sense, the travel experience is solely confined to the constructed reality, and [tourists] do not even acknowledge the fact that [they] are only seeing a fraction of the city and people."

As a culture we have come to understand the potential to manipulate reality within the context of photographic images. We know deep down that the model on the pages of has pores, yet that airbrushed version of beauty becomes the standard. As we begin to link photographic images and other attributes to places via our maps, we start to shape our perceptions of that place, for good and bad.

The growing dialogue over user-generated mapping sounds a lot like early conversations about photography. In 1928, Walter Benjamin wrote in one of his many essays about film that, "the limits of photography cannot yet be predicted. Everything to do with it is still so new that even

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initial exploration may yield strikingly creative results. Technical expertise is obviously the tool of the pioneer in this field. The illiterates of the future will be the people who know nothing of photography."

The same could be said for today's emerging cartographic experience. User-generated maps, with their democratic access and multiple viewpoints, open us to new possibilities and perspectives. The ability to manipulate maps and to read them for what they really are will become an invaluable skill. Maps will become an increasingly powerful tool. How that power will be harnessed is at the heart of the debate. Mapping technology has the potential to skew reality; it also has the potential to aid in the fight for responsible urbanism. Take the Web site, URBZ, as an example. The organization is developing multimedia wiki interfaces to give anyone the ability to access, upload, and geotag local information. They are mapping data in some of the most remote and troubled places, including Dharavi, one of the largest slums in the heart of Mumbai. "URBZ believes that the deepest knowledge about cities exists amongst its inhabitants and communities," the founders explain on the site. "For urban planners and other practitioners, working with this knowledge through direct engagement with people is the best possible way to enhance the quality and impact of their work."

If Moses and Jacobs were facing off about the LoMEx today, Jacobs would likely include the wiki developed by URBZ as one of the many tools in her arsenal of urban activism. Jacobs always advocated for a clear understanding of how cities actually function at the street level. The ability to apply mapping technology in meaningful ways will become an increasingly important instrument in urban planning and civic understanding. A great power resides with the mapmaker. It is important to remember that today – more than ever – those maps are subjective. We are all the mapmakers now.